

**AMENDMENTS TO THE CLAIMS**

**Amendments to the Claims:**

Please amend claims 13, 21 and 23-26 as indicated below.

This listing will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-12 (canceled)

Claim 13 (currently amended): A method for non-instrument-dependent determination of coordinates of a point imaged using a microscope, the method comprising:

determining, at object-related reference coordinates of at least one imaged reference point in a DICOM-Digital Imaging and Communications in Medicine coordinate system, corresponding first instrument coordinates of the at least one imaged reference point in an instrument-dependent coordinate system;

determining, using the object-related reference coordinates and the corresponding first instrument coordinates, a transformation rule for converting instrument-dependent coordinates into corresponding coordinates of the DICOM-Digital Imaging and Communications in Medicine coordinate system; and then

converting, using the transformation rule, second instrument coordinates of an imaged point into non-instrument-dependent coordinates of the DICOM-Digital Imaging and Communications in Medicine coordinate system.

Claim 14 (previously presented): The method as recited in claim 13 further comprising presetting the reference coordinates using a calibration slide.

Claim 15 (previously presented): The method as recited in claim 14 wherein the calibration slide corresponds to a first type of microscope slide.

Claim 16 (previously presented): The method as recited in claim 14 further comprising providing the calibration slide based on a first type of microscope slide.

Claim 17 (previously presented): The method as recited in claim 13 wherein the determining the transformation rule is performed using an overdetermined affine transformation.

Claim 18 (previously presented): The method as recited in claim 13 wherein the determining the transformation rule is performed using an overdetermined affine transformation for x, y coordinates of the instrument-dependent coordinates.

Claim 19 (previously presented): The method as recited in claim 13 wherein the determining the transformation rule is performed using at least one of an averaging and an inclined plane approach.

Claim 20 (previously presented): The method as recited in claim 13 wherein the determining the transformation rule is performed using at least one of an averaging and an inclined plane approach for a z coordinate of the instrument-dependent coordinates.

Claim 21 (currently amended): A calibration slide comprising at least one reference point with preset reference coordinates in a DICOM-Digital Imaging and Communications in Medicine coordinate system, the preset reference coordinates being usable to determine corresponding first instrument coordinates of the at least one reference point when the at least one reference point is imaged by a microscope so as to enable the determining of a transformation rule for converting instrument-dependent coordinates into corresponding coordinates of the DICOM-Digital Imaging and Communications in Medicine coordinate system.

Claim 22 (previously presented): The calibration slide as recited in claim 21 wherein the slide has a shape and a size corresponding to a type of microscope slide.

Claim 23 (currently amended): A system for non-instrument-dependent determination of coordinates of a point to be imaged using a microscope, the system comprising:

a coordinate-determination unit configured to determine instrument coordinates of an imaged point; and

a computer unit configured to calculate, from first instrument coordinates of at least one imaged reference point and associated predetermined object-related reference coordinates in a DICOM-Digital Imaging and Communications in Medicine coordinate system, a transformation rule for converting instrument-dependent coordinates into coordinates of the DICOM-Digital Imaging and Communications in Medicine coordinate system.

Claim 24 (currently amended): The system as recited in claim 23 wherein the computer unit is configured to calculate, from the instrument coordinates of the imaged point using the calculated transformation rule, corresponding non-instrument-dependent coordinates in the DICOM-Digital Imaging and Communications in Medicine coordinate system.

Claim 25 (currently amended): A computer readable medium having stored thereon computer executable process steps operative to perform a method for non-instrument-dependent determination of coordinates of a point imaged using a microscope, the method comprising:

determining, at object-related reference coordinates of at least one imaged reference point in a DICOM-Digital Imaging and Communications in Medicine coordinate system, corresponding first instrument coordinates of the at least one imaged reference point in an instrument-dependent coordinate system;

determining, using the object-related reference coordinates and the corresponding first instrument coordinates, a transformation rule for converting instrument-dependent coordinates into corresponding coordinates of the DICOM-Digital Imaging and Communications in Medicine coordinate system; and then

converting, using the transformation rule, second instrument coordinates of an imaged point into non-instrument-dependent coordinates of the DICOM-Digital Imaging and Communications in Medicine coordinate system.

Claim 26 (currently amended): The computer readable medium as recited in claim 25 wherein the computer executable process steps are executable by a computer unit of a system for non-instrument-dependent determination of coordinates of a point to be imaged using a microscope, the system comprising the computer unit and a coordinate-determination unit configured to determine instrument coordinates of an imaged point, the computer unit being configured to calculate, from first instrument coordinates of at least one imaged reference point and associated predetermined object-related reference coordinates in a DICOM-Digital Imaging and Communications in Medicine coordinate system, a transformation rule for converting instrument-dependent coordinates into coordinates of the DICOM-Digital Imaging and Communications in Medicine coordinate system.